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Math, 7

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Barbie Bunge Lab Report

Barbie Bungee

The Barbie Bungee investigation was about how we took Barbie, and dropped her with rubber bands as the bungee cord. Our purpose was to take our starting data from the drops with 1 to 6 rubber bands. We did 3 drops for each band and we took the average every time. After that we used an equation to figure out how many rubber bands we were going to use. Our group used 15 bands for Barbie’s big jump. In the end we wanted Barbie when we dropped her to not hit the ground. Our objective was that Barbie would be about 6 inches off of the ground.

Our group collected our data by taping the measuring tape to the wall. We then dropped Barbie from the top of the tap 3 times for each band. After that we took the average of each drop. We then used out information to make an equation and a line of fit.

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| Number of Rubber Bands | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | |
| Trials | 18 | 17.5 | 19 | 30 | 31 | 31 | 45 | 43 | 43 | 56 | 56 | 56 | 68 | 69 | 68 | 79 | 79 | 78 |
| Mean | 18.16 | | | 30.6 | | | 43.6 | | | 56 | | | 68.3 | | | 78.3 | | |

Graph

Calculations- We decided to use 15 rubber bands because when we were looking for our answer we put the equation into the calculator. We got up the graph and we traced. When we got to our number which was 189.76 inches on the graph it also said 15 so we knew right away 15 bands was our number.

Results- On the final jump we were successful, and Barbie didn’t hit the ground.

Conclusion- Some problems that we came into were trying to figure out the equation for the line of fit. The final jump worked really well because we thought Barbie was going to fall. I would have tried to use one more band in the experiment.